

## REMARKS

The Office Action dated January 31, 2012, has been received and reviewed.

Claim 12 is amended to address the indefiniteness rejection under 35 U.S.C. § 112, second paragraph, on page 2 of the instant Office Action. This amendment removes the claim limitation “fixing the front side of the felt backing to the back side of the semi-finished carpet pile product.”

Claim 12 adds the limitation wherein a continuous carpet web is formed by sewing together succeeding webs which are unrolled from the rolls.

Claim 12 is amended to add the limitation of “passing the semi-finished carpet pile product and the felt through an oven” that forms the carpet web. Claim 12 is further amended to incorporate the subject matter of claim 13 - *i.e.*, “wherein the coating the back side of the semi-finished carpet pile product comprises bonding the front side of the felt back with the back side of the semi-finished carpet pile product by gluing.”

At the outset Applicant would like to stress some of the important differences which distinguish the present invention from that of the prior art.

It is normal procedure that the semi-finished product having a pile side and a back side which could also be noted piles and a primary backing would be transferred directly from a carpet line to a so-called tile line in which a backing is introduced which provides the dimensional stabilization and the rigidity of the finished tile.

The major difference with the present invention is the interposing of an intermediate line in which the felt is added to the semi-finished product. The felt is also called a secondary

backing. When introducing an intermediate line between the carpet line and the tile line, it is possible to provide a very simple tile line compared to the traditional tile lines - *e.g.*, as disclosed by Higgins. With this process it is possible to make use of existing lines in production; however, with an intermediate process in which the felt is applied. With the product according to the present invention a sandwich-construction is established in which the felt is used as the core element of a sandwich-construction which is interposed between the rigid pile side and the backing which is provided by the latex polymer, wherein the latex is cured.

It is noted that it is normal within the manufacture of carpets to arrange a backing on a semi-finished product and thereafter rolling the product. However, with traditional carpets it is acceptable that they are pliable and do not have high stiffness.

Accordingly, with the manufacture of traditional carpets there is no intermediate step. Instead, the semi-finished carpet pile product is introduced directly into a line in which a backing side is applied. After this the finished carpet is rolled up.

Yet the feature of stiffness in tile production is necessary. Therefore, the tile line should be arranged just prior to a punching unit in which the dimensional stabilized and rigid carpet web is punched into the desired shapes.

Applicant hopes that the foregoing distinctions provide some clarification for the following arguments.

Reconsideration and withdrawal of the rejections are respectfully requested.

**The Subject Matter Of Claims 12-26, 28, 29 And 31-35 Would Not Have Been Obvious From A Combination Of Higgins et al. US 2004/0253410 In View Of US 2009/0081406, US 2007/0154672 And US 2004/0022994 Issued To Higgins. Claims 12-26, 28, 29 And 31-35 Are Nonobvious Under 35 U.S.C. § 103(a).**

The Examiner rejected claims 12-26, 28, 29 and 31-35 under 35 U.S.C. § 103(a) as being unpatentable over Higgins et al. US 2004/0253410 in view of US 2009/0081406, US 2007/0154672 and US 2004/0022994 all issued to Higgins. This rejection is respectfully traversed.

The present invention is drawn a method to produce carpet shapes with carpet piles having a felt backing. This method is achieved by making a semi-finished carpet pile product, wherein the carpet pile has a pile side and a back side. Felt for the felt backing is selected, wherein the felt backing has a front side towards the back side of the semi-finished carpet pile product and a rear side away from the back side. The semi-finished carpet pile product and the felt backing are separately rolled and unrolled.

A continuous carpet web is formed by sewing together succeeding webs which are unrolled from the rolls and coating the back side of the semi-finished carpet pile product with the front side of the felt, wherein the coating the back side of the semi-finished carpet pile product comprises bonding the front side of the felt back with the back side of the semi-finished carpet pile product by gluing. The carpet web is passed through an oven, and the carpet web is thereafter rolled.

An outermost layer of the carpet web is formed away from the carpet pile side by surface coating the rear side of the felt with a layer of latex polymer having a thickness less than a thickness of the felt layer. The latex polymer is cured to provide dimensional stabilization and rigidity with the cured latex polymer to the carpet web. The carpet web containing the cured

latex polymer is punched into desired shapes and dimensions, and thereby provides carpet shapes with carpet pile and felt backing with the dimensional stabilization and rigidity imparted by the cured layer of latex polymer on the rear side of the felt.

Applicant believes the Examiner's rejection of claim 12 is obviated by the instant claim amendments wherein a "continuous" carpet web is formed by coating the back side of the semi-finished carpet pile product with the front side and "sewing together succeeding webs which are unrolled from the rolls, wherein the coating the back side of the semi-finished carpet pile product comprises bonding the front side of the felt back with the back side of the semi-finished carpet pile product by gluing, passing the semi-finished carpet pile product and the felt through an oven."

Moreover, in Applicant's previous Response dated November 14, 2011, claim 12 was amended to limit the curable polymer layer to a latex, wherein the curable polymer layer provides dimensional stabilization and rigidity when cured. On pages 4-5 of the instant Office Action the Examiner states:

Higgins '410 teaches the friction enhancing coating may be a styrene butadiene latex [SBR]. Also, Higgins' friction enhancing coating will inherently add some degree of dimensional stability and rigidity when cured, especially in comparison to a like carpet tile without said coating.

Regarding the former amendment, while Higgins teaches the step of fixing the felt backing to the semi-finished carpet pile product, the reference does not explicitly teach the rolling and unrolling steps of the semi-finished carpet pile product and the felt backing. However, as arguing with the steps of rolling and unrolling the carpet web, said steps would have been readily obvious to a skilled artisan. Specifically, textile webs involving in the making of carpets and carpet webs are commonly rolled for storage and/or transport from one process line to another. For example, as a carpet is tufted (e.g., greige carpet or semi-finished carpet pile product), it

is rolled upon a beam for storage before transferring to a backcoating station or other station where a secondary backing or other laminate layer is joined thereto. Similarly, the secondary backing (e.g., felt backing) is prepared and stored on a roll until transfer to a station for joining to the semi-finished carpet pile product. Furthermore, once a carpet web is produced from the combination of the greige carpet and the secondary backing, it is commonly rolled until further use as a final broadloom carpet product or for further processing into carpet tiles. See, for example, Higgins '406, Figures 6 and 9, sections [0220] - [0222] and [0233] - [0252], Higgins '672, Figures 14A and 14B, section [0082], and Higgins '994, Figure 2, section [0127].

1/31/2012 Office Action, pp. 4-5. The Examiner therefore appears to take official notice of Applicant's claimed method limitations of rolling and unrolling the semi-finished carpet pile product and the felt backing prior to forming an outmost layer of the carpet web away from the carpet pile side by surface coating the rear side of the felt with a layer of curable latex polymer.

However, none of the cited Higgins references teach Applicant's aforementioned claim limitations. The Examiner's official notice is therefore traversed and the Examiner is requested to cite a reference that teaches Applicant's claimed limitations.

The rejection of claim 12 and dependent claims 13-26 under 35 U.S.C. § 103(a) should be withdrawn and the claims allowed.

Claim 25:

In Applicant's Response dated November 11, 2011, dependent claim 25 was amended to add to method claim 1 the limitations wherein the surface coating with the curable latex polymer comprises surface coating with an aqueous solution having a dry matter percentage of 51.1% of a modified styrene butadiene latex polymer in an amount between 50 and 500 g dry matter/m<sup>2</sup>.

The Examiner's reply in the instant Office Action is as follows:

While Higgins fails to explicitly teach the claimed dry matter percentage and weight, it would have been obvious to one of ordinary skill at the time of the invention to determine an appropriate dry matter percentage and weight in order to provide the desired overall thickness, frictional properties, and/or dimensional stability. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 205 USPQ 215. Thus, claim 25 is also stands rejected over the cited prior art.

1/31/2012 Office Action, p. 5. This rejection is respectfully traversed because only result-effective variables can be optimized.

A particular parameter must first be recognized as a result-effective variable, *i.e.*, a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) (The claimed wastewater treatment device had a tank volume to contractor area of 0.12 gal./sq. ft. The prior art did not recognize that treatment capacity is a function of the tank volume to contractor ratio, and therefore the parameter optimized was not recognized in the art to be a result- effective variable.). See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (prior art suggested proportional balancing to achieve desired results in the formation of an alloy).

Regarding the instant Office Action, the Examiner has only cited the collective reference of Higgins for disclosing enhanced frictional properties. Yet the Higgins references did not recognize - *i.e.*, teach or disclose - the dimensional stabilization and rigidity imparted to the carpet tiles by the limitations required in claim 25. Therefore, the rejection of claim 25 is traversed and the rejection should be withdrawn.

Claims 13-26, 28, 29 and 31-34:

The Examiner has not discussed the balance of the rejected claims in a manner to permit the Applicant to substantively respond to the rejection. The Applicant has searched Higgins for the subject matter relied upon and has not found disclosure of the claimed features in the reference. 37 C.F.R. 1.104. Therefore, the rejection is traversed and the Examiner is requested to point out with particularity where the features in the claims are found in Higgins.

It is respectfully submitted for reconsideration that the pending claims are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicant's Representatives at the telephone number listed below if it is believed that prosecution of this application may be assisted thereby.

**CONCLUSION**

Reconsideration and allowance of all claims are requested.

Respectfully,

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